Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRAVERSAL AND REQUEST FOR RECONSIDERATION OF REQUIREMENT FOR RESTRICTION

A restriction requirement, based on alleged lack of unity of invention, under PCT Rule 13, was set forth in the Official Action dated April 22, 2003 in the above-identified patent application. It is the Examiner's position that claims 17-42 in the present application are drawn to five (5) patentably distinct inventions which are as follows:

Group I, claims 17, 20, 22, 24, 26, and 29, drawn to a compound of a first formula;

Group II, claims 18, 19, 21, 23, 25, 27, 28, and 30, drawn to a compound of a second formula;

Group III, claims 31-41, drawn to a process for releasing an amino acid or a peptide comprising irradiating a photoreleasable compound of Group I or Group II;

Group IV, claims 41, drawn to a process of producing a compound of Group I; and

Group V, claims 42, drawn to a process for purifying a compound of Group I.

Applicants respectfully submit that the restriction requirement set forth above is improper for the following reasons.

According to PCT Rule 13.2, the unity of invention referred to in Rule 13.1 is satisfied when there is a technical relation among the inventions involving one or more of the same or corresponding special technical features, i.e. those technical features which, as a whole, define a contribution over the prior art.

In the instant case the Examiner has failed to cite any prior art to support the lack of unity determination on which

the requirement for restriction is based. It is Applicants' assumption, therefore, that this lack of unity objection is predicated on the prior art documents D1 to D4 listed in the IPE report. However, the R_1 and R_4 substituents in claim 17, included in Group I, and R_4' substituent in claim 18, included in Group II together define a set of functional groups that constitute special technical features defining structural and functional differences of the claimed compounds, as compared to those disclosed in the prior art.

Referring to the documents listed in the IPE report, documents D1 to D4 represent the closest prior art to the present invention. Of these, documents D1 to D3 concern 5-bromo-7-nitroindolines used in peptide synthesis. These compounds are structurally distinct from those of the present invention as claims 17 and 18 do not allow a halogen substituent at the 5- position of the 7-nitroindoline. As regards inventive step or obviousness, the problem addressed by the present invention is to provide a compound capable of caging a biologically relevant effector, such as a neuroactive amino acid and which is capable of releasing the compounds in an aqueous biological environment by photolysis at high efficiency. In D1 to D3, the compounds are not particularly stable in water and have release efficiencies 2.5 times lower than the claimed compounds (see page 39, line 7 of the present application). For this reason, the reports of the release of caged effectors in D1 to D3 takes place in organic solvent, generally dioxane-CH_2CL_2 containing only a trace of water.

The compounds reported in document D4 are also structurally different and functionally inferior to those of the present invention. This paper discloses 5,7-dinitroindolines linked to metal ion chelators such as BAPTA. Again, the formulae of the compounds of the invention set out in claims 17 and 18 do not include the possibility of a second nitro group at the 5-position. Although the D4 compounds are used in aqueous solution, they did not photolyse efficiently except in the presence of excess Ca^{2+} ions, see D4, page 7959, second column,

top paragraph. This limits the usefulness of the compounds of D4. It is noteworthy that metal ion chelators are no longer included within the scope of the effector groups set out in claims 17 and 18.

In short, the points discussed above are sufficient to establish that the claims of this application relate to a single general inventive concept and that the restriction requirement between Groups I and II should be withdrawn.

Turning to the process claims, it is well settled practice in applying the PCT's unity of invention standards to U.S. national stage applications that an invention relating to new compounds is examined together with corresponding process claims directed to processes for producing the new compounds and processes for using them. See 37 C.F.R. §1.475(b)(3). Thus, at the very least, the Examiner should rejoin Groups III and IV of the claims with Groups I and II.

In order to be fully responsive to the above-mentioned requirement, Applicants hereby elect the subject matter of Group I, including claims 17, 20, 22, 24, 26, and 29, for consideration in this application.

The foregoing election is without prejudice to applicants' right to file one or more continuing applications, as provided in 35 U.S.C. §121, on the subject matter of any claims finally held withdrawn from consideration in this application.

Early and favorable action on the merits of this application is respectfully solicited.

Respectfully submitted,
DANN DORFMAN HERRELL and SKILLMAN, P.C.
Attorneys for Applicant

By _____
Tong Li
Registration No. 47,748

Telephone: (215) 563-4100
Facsimile: (215) 563-4044